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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,301	11/19/2003	William A. Groll	916-032289	6470

28289 7590 06/28/2005

THE WEBB LAW FIRM, P.C.
700 KOPPERS BUILDING
436 SEVENTH AVENUE
PITTSBURGH, PA 15219

EXAMINER

ZIMMERMAN, JOHN J

ART UNIT	PAPER NUMBER
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1775

DATE MAILED: 06/28/2005 /

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/717,301

Applicant(s)

GROLL ET AL.

Examiner

John J. Zimmerman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20050414.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

FIRST OFFICE ACTION

Information Disclosure Statement

1. The "INFORMATION DISCLOSURE STATEMENT" received April 14, 2005 has been considered. An initialed form PTO-1449 is enclosed with this First Office Action.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burrack (U.S. Patent 2,612,682) in view of Ulam (U.S. Patent 4,246,045) and further in view of Groll (U.S. Patent 6,267,830),

4. Burrack discloses a method of firmly bonding copper cladding to aluminum base cores by prebonding aluminum foil layers to the copper cladding layers (by roll bonding) before roll bonding the prebonded aluminum/copper cladding to the aluminum core (e.g. see Example 1).

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The aluminum foil and core may be pure aluminum (e.g. column 1, lines 22-24). Burrack differs from the claims in that the aluminum core is not disclosed to be of Alclad aluminum. Ulam discloses, however, that when an Alclad aluminum is used in the art when roll bonding aluminum to copper, undesirable orange peel effects can be eliminated (e.g. see column 3, lines 9-27). In view of Ulam, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use Alclad aluminum for the aluminum base core of Burrack because Ulam discloses that Alclad aluminum sheets are known to have reduced orange peel effects when they are roll clad with other metals. Groll further confirms that it is well established in the art that Alclad is typically used when roll bonding aluminum sheets to other metals (e.g. see column 2, lines 18-25) and Groll further shows typical methods of forming multilayer composites in the art by prebonding and hot rolling stacked packs in hot rolling mills with incremental reductions (e.g. see claim 6). In view of Groll's state of the art methods of hot rolling clad multilayer composites, it would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt Burrack's article to current hot rolling methods including incremental reductions and optimized rolling temperatures. Regarding claim 6 reciting "forming the composite metal sheet of step (e) into a desired antenna configuration", there is no particular claimed configuration of the formed antenna that would distinguish the antenna from any other configuration produced by Burrack. The multilayer composite articles of Burrack could certainly be capable of performing as cellular telephone transmission tower antennas even though Burrack states no intended use for this purpose. Thus, while the recitations "making a cellular telephone transmission tower antenna" (e.g. claim 6, line 1) and "A cellular telephone transmission tower antenna" (e.g. claim 5, line 1; claim 6, line 1) are noted, a recitation of the

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intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963). In addition, the recitation has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

5. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Polese (U.S. Patent Application Publication 2002/00006526) in view of Ulam (U.S. Patent 4,246,045) and further in view of Groll (U.S. Patent 6,267,830),

6. Polese discloses a method of bonding copper cladding to aluminum base cores by prebonding aluminum strips to the copper cladding layers (by roll bonding) before roll bonding the prebonded aluminum/copper cladding to the aluminum core (e.g. see paragraphs [0050], [0052]). Polese differs from the claims in that the aluminum core is not disclosed to be of Alclad aluminum. Ulam discloses, however, that when an Alclad aluminum is used in the art when roll

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bonding aluminum to copper, undesirable orange peel effects can be eliminated (e.g. see column 3, lines 9-27). In view of Ulam, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use pure aluminum clad to the Al-SiC base core of Polese because Ulam discloses that aluminum clad aluminum-base sheets are known to have reduced orange peel effects when they are roll clad with other metals. Groll further confirms that it is well established in the art that Alclad is typically used when roll bonding aluminum sheets to other metals (e.g. see column 2, lines 18-25) and Groll further shows typical methods of forming multilayer composites in the art by prebonding and hot rolling stacked packs in hot rolling mills with incremental reductions (e.g. see claim 6). In view of Groll's state of the art methods of hot rolling clad multilayer composites, it would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt Polese's article to current hot rolling methods including incremental reductions and optimized rolling temperatures. Regarding claim 6 reciting "forming the composite metal sheet of step (e) into a desired antenna configuration", there is no particular claimed configuration of the formed antenna that would distinguish the antenna from any other configuration produced by Polese. The multilayer composite articles of Polese could certainly be capable of performing as cellular telephone transmission tower antennas even though Polese states no intended use for this purpose. Thus, while the recitations "making a cellular telephone transmission tower antenna" (e.g. claim 6, line 1) and "A cellular telephone transmission tower antenna" (e.g. claim 5, line 1; claim 6, line 1) are noted, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the

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claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963). In addition, the recitation has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

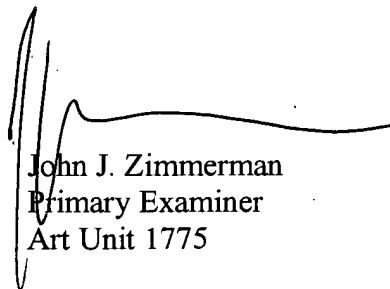
Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additionally cited references serve to further establish the level of ordinary skill in the art at the time the invention was made.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Zimmerman whose telephone number is (571) 272-1547. The examiner can normally be reached on 8:30am-5:00pm, M-F. Supervisor Deborah Jones can be reached on (571) 272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John J. Zimmerman
Primary Examiner
Art Unit 1775

jjz
June 23, 2005